NextGen Performance — National Airspace System

On any given day, more than 85,000 flights are in the skies in the United States. Only one-third of those operations are commercial carriers. The remaining two-thirds include general aviation, including private planes and business jets, air taxi flights, military flights and air cargo flights. This translates into roughly 5,000 planes in the skies above the United States at any given moment. More than 15,000 federal air traffic controllers in airport traffic control towers, terminal radar approach control facilities and air route traffic control centers guide pilots through the system. These controllers provide air navigation services to aircraft in domestic airspace and 24.6 million square miles of international oceanic airspace delegated to the United States by the International Civil Aviation Organization. The FAA's mission is to provide the safest, most efficient aerospace system in the world, and NextGen is the FAA's comprehensive overhaul of the National Aviation System to make air travel more convenient and dependable.

Scorecard

Performance Indicator	2005	2006	2007	2008	2009	2010
Aircraft CO_2 Emissions *Kilograms* Quantity of Carbon Dioxide (CO_2) emitted by aircraft engines.	2.27×10^{11}	2.30×10^{11}	2.34×10^{11}	2.13×10^{11}	2.01×10^{11}	2.11×10^{11}
Fuel Efficiency *Teragrams per Billion Kilometers* Fuel Burn in Teragrams/Distance in nautical miles (1 Teragram (Tg) = 10^{12} grams)	4.15	4.14	4.16	4.14	4.08	4.12
People Exposed to Significant Noise *Number of People* Number of persons exposed to significant aircraft noise. Significant aircraft noise levels are currently defined as values greater than or equal to 65 decibels (dB) Day Night Sound Level (DNL).	498,000	481,000	468,000	387,000	297,000	323,000

The ATM system should contribute to the protection of the environment by considering noise, gaseous emissions and other environmental issues in the implementation and operation of the global ATM system.

Performance Indicator	2009	2010	2011

Air Carrier Fatality Rate *Fatalities per 100 Million persons* Rate of fatalities per 100 million persons on board commercial flight.	6.70	0.30	0
GA Fatal Accident Rate *Fatal Accidents per 100,000 flight hours* Rate of fatal General Aviation (GA) Accidents per 100,000 Flight Hours.	1.17	1.10	1.11
System Risk Event Rate (SRER) *Event Rate* All instances of non-compliance with radar separation standards, termed Loss of Standard Separation, or LoSS. It is the rate of the most serious losses, for every thousand losses of standard separations within the system. This metric will measure the separation compliance performance of radar controlled aircraft flying under the Instrument Flight Rule.	—	—	24.54
Total Runway Incursions *Events* Includes all four categories of runway incursions - A, B, C, D. **Category A** Separation decreases to the point that participants take extreme action to narrowly avoid a collision. **Category B** Separation decreases, and there is a significant potential for a collision. **Category C** Separation decreases, but there is ample time and distance to avoid a collision. **Category D** There is little or no chance of collision, but the definition of a runway incursion is met.	—	966	954

Safety is the highest priority in aviation, and ATM plays an important part in ensuring overall aviation safety. Uniform safety standards and risk and safety management practices should be applied systematically to the ATM system. In implementing elements of the global aviation system, safety needs to be assessed against appropriate criteria and in accordance with appropriate and globally standardized safety management processes and practices.